

**WHAT IS CLAIMED IS:**

1. A method for treating or preventing endometriosis in a patient in need of such treatment or prevention, comprising the administration of an effective amount of a cyclooxygenase-2 selective inhibitor to said patient.  
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2. A method for retarding the development of endometriotic lesions in a patient at risk of the developing said lesions, comprising the administration of an effective amount of a cyclooxygenase-2 selective inhibitor to said patient, in accordance with Claim 1.  
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3. A method for preventing the development of endometriotic lesions in a patient at risk of the developing said lesions, comprising the administration of an effective amount of a cyclooxygenase-2 selective inhibitor to said patient, in accordance with Claim 1.  
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4. A method for reversing the development of endometriotic lesions in a patient at risk of the developing said lesions, comprising the administration of an effective amount of a cyclooxygenase-2 selective inhibitor to said patient, in accordance with Claim 1.  
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5. A method for reducing number or severity of endometriotic lesions in a patient having said lesions, comprising the administration of an effective amount of a cyclooxygenase-2 selective inhibitor to said patient, in accordance with Claim 1.  
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6. A method for retarding the development of endometriotic lesions in a patient with endometriosis of a type amenable to hormonal therapy, comprising the administration of an effective amount of a cyclooxygenase-2 selective inhibitor to said patient, in accordance with Claim 1.  
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7. A method for preventing the development of endometriotic lesions in a patient with endometriosis of a type amenable to hormonal therapy, comprising the administration of an effective amount of a cyclooxygenase-2 selective inhibitor to said patient, in accordance with Claim 1.  
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8. A method for reversing the development of endometriotic lesions in a patient with endometriosis of a type amenable to hormonal therapy, comprising the administration of an effective amount of a cyclooxygenase-2 selective inhibitor to said patient, in accordance with Claim 1.

9. A method of inhibiting aromatase in a patient at risk of having endometriotic lesions, comprising the administration of an effective amount of a cyclooxygenase-2 selective inhibitor to said patient, in accordance with Claim 1.

10 10. A method of reducing elevated levels of aromatase in a patient at risk of having endometriotic lesions, comprising the administration of an effective amount of a cyclooxygenase-2 selective inhibitor to said patient, in accordance with Claim 1.

15 11. A method of reducing elevated levels of aromatase in a patient with post menopausal endometriosis, comprising the administration of an effective amount of a cyclooxygenase-2 selective inhibitor to said patient, in accordance with Claim 1.

20 12. The method according to Claim 1 wherein the cyclooxygenase-2 selective inhibitor is selected from the group consisting of: rofecoxib, etoricoxib, celecoxib, valdecoxib, lumiracoxib, BMS347070, tiracoxib, ABT963, CS502 and GW406381.

25 13. The method according to Claim 1 wherein the cyclooxygenase-2 selective inhibitor is rofecoxib.

30 14. The method according to Claim 13 wherein rofecoxib is administered at a dose of about 12.5 mg or about 25 mg.

15. The method according to Claim 14 wherein rofecoxib is orally administered on a once daily basis.

16. The method according to Claim 1 wherein the cyclooxygenase-2 selective inhibitor is etoricoxib.
17. The method according to Claim 16 wherein etoricoxib is  
5 administered at a dose of about 60 mg, about 90 mg or about 120 mg.
18. The method according to Claim 1 wherein the cyclooxygenase-2 selective inhibitor is celecoxib.
- 10 19. The method according to Claim 18 wherein celecoxib is administered at a dose of about 100 mg or about 200 mg or about 400 mg.
20. The method according to Claim 1 wherein the cyclooxygenase-2 selective inhibitor is valdecoxib.  
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21. The method according to Claim 20 wherein valdecoxib is administered at a dose of about 10 mg or about 20 mg.
22. The method according to Claim 1, wherein the cyclooxygenase-2 selective inhibitor is concomitantly or sequentially co-administered with an oral contraceptive.  
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23. The method according to Claim 22 wherein the oral contraceptive is selected from the group consisting of: norethindrone, norethindrone acetate, chlormadione acetate, norethynodrel, norgestrel, medroxyprogesterone acetate, megestrol acetate, lynestrenol, quingestrone, ethynodiol acetate, and dimethisterone.  
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24. The method according to Claim 1 wherein the cyclooxygenase-2 selective inhibitor is administered perioperatively or as follow-up therapy to surgical removal of endometriotic implants.  
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25. The method according to Claim 1, wherein the cyclooxygenase-2 selective inhibitor is concomitantly or sequentially co-administered with a GnRH agonist.  
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26. The method according to Claim 25 wherein the GnRH-agonist is selected from the group consisting of nafarelin acetate, leuprolide acetate, goserelin acetate, and buserelin acetate.